# GRANDE RONDE MODEL WATERSHED HABITAT PROJECTS

9402700

## SHORT DESCRIPTION:

Develop and implement projects which will restore proper watershed functions in the Grande Ronde Basin. Provide the required spawning, rearing and migration habitat for endangered salmonids.

#### SPONSOR/CONTRACTOR: GRMWP

Grande Ronde Model Watershed Program (Blue Mtns.): Union County, Wallowa County
Patty Perry, Executive Director
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#### **SUB-CONTRACTORS:**

This project could include 50 or more individual habitat restoration projects. The following agencies may receive funding to accomplish or administer individual projects: Oregon Department of Fish and Wildlife, US Forest Service, Union Soil and Water Conservation District, Wallowa Soil and Water Conservation District, Union County, Wallowa County, Union County Public Works, Wallowa County Road Department.

## **GOALS**

## **GENERAL:**

Supports a healthy Columbia basin, Maintains biological diversity, Maintains genetic integrity, Increases run sizes or populations, Provides needed habitat protection

## **WATERSHED:**

Implementation

#### **ANADROMOUS FISH:**

Habitat or tributary passage

#### NPPC PROGRAM MEASURE:

7.0 (7.6D 7.7B.3 7.8A.2 7.8A.5)

## **RELATION TO MEASURE:**

This project is the implementation of many individual habitat restoration projects under the Grande Ronde Model Watershed Program. These projects are on-the-ground actions that address key limiting factors for salmon and steelhead production through the implementation planning process.

## **OTHER PLANNING DOCUMENTS:**

National Marine Fisheries Service Snake River Salmon Recovery Plan (NMFS 1995, U.S. Dept. of Commerce, National Oceanic & Atmospheric Admin., Washington DC), Tasks 1.1.b, 1.4.b, 1.4.d, 1.5.b, and 1.6.b. Columbia River Basin Fish and Wildlife Program , Sections 7.6D, 7.7Stream and Riparian Conditions in the Grande Ronde Basin 1993, Section 9.2.2Grande Ronde Model Watershed Operations-Action Plan, Appendix A & BWallowa County - Nez Perce Tribe Salmon Recovery PlanGrande Ronde Ecosystem Diagnosis and Treatment StudyWallowa Whitman National Forest PlanNumerous additional Subwatershed Action Plans and Coordinated Resource Management Plans (CRMP) have been completed or are in progress which identify restoration actions specific to subwatersheds.

TARGET STOCK	<u>LIFE STAGE</u>	MGMT CODE (see below)
Spring chinook/Indian Creek	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Catherine Creek	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Lostine River	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W

AFFECTED STOCK	BENEFIT OR DETRIMENT	
Spring chinook/Minam River	Spawning, rearing, holding, migration (adults in, smolts out)	L,N,W
Bull trout/Grande Ronde River and tribs.	Spawning, rearing, holding, migration	P,W
Summer steelhead/Grande Ronde River and tribs.	Spawning, rearing, holding, migration (adults in, smolts out)	P,W
Summer steelhead/Imnaha River and tribs.	Spawning, rearing, holding, migration (adults in, smolts out)	P,A,W
Summer steelhead/Joseph Creek and tribs.	Spawning, rearing, holding, migration (adults in, smolts out)	P,N,W
Summer steelhead/Wenaha River and tribs.	Spawning, rearing, holding, migration (adults in, smolts out)	P,N,W
Summer steelhead/Wallowa River and tribs.	Spawning, rearing, holding, migration (adults in, smolts out)	A,P,W
Spring chinook/Lookingglass Creek	Spawning, rearing, holding, migration (adults in, smolts out)	S
Summer steelhead/ Indian Creek and tribs	Spawning, rearing, holding, migration (adults in, smolts out)	P,W
Summer steelhead/Lookingglass Creek and tribs	Spawning, rearing, holding, migration (adults in, smolts out)	P,W
Summer steelhead/Catherine Creek and tribs.	Spawning, rearing, holding, migration (adults in, smolts out)	P,W
Spring chinook/Grande Ronde River mainstem	Rearing, holding, migration (adults in, smolts out)	L,W
Spring chinook/Wenaha River	Spawning, rearing, holding, migration (adults in, smolts out)	L,N,W
Spring chinook/Upper Grande Ronde River	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Big Sheep Creek	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Imnaha River	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Mainstem Wallowa	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Hurricane Creek	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W
Spring chinook/Bear Creek (Wallowa)	Spawning, rearing, holding, migration (adults in, smolts out)	L,S,W

## AFFECTED STOCK

Native wildlife & fish species in the basin

## **BENEFIT OR DETRIMENT**

Beneficial

# **BACKGROUND**

## STREAM AREA AFFECTED

**Stream name:** 

Grande Ronde and tributaries

Stream miles affected:

2,900

## Hydro project mitigated:

Four Lower Columbia & four Lower Snake hydroelectric projects; not specific to any particular

## LAND AREA INFORMATION

**Subbasin:** 

Grande Ronde

Land ownership:

Public-60%, Private 40%

Acres affected:

3,320,000

#### **Habitat types:**

N/A only applies to wildlife

## **HISTORY:**

The Grande Ronde Basin has been targeted for habitat restoration work by various agencies and programs. BPA has been working with agencies, the GRMWP, and individuals in the Grande Ronde basin for many years and has provided funding for many habitat restoration projects. In 1995 BPA committed \$296,000 to habitat restoration projects. In 1996 the figure was \$910,000. In 1997 we hope to commit \$1.1 million BPA funds, matched by over \$5 million from landowners and other agencies, to approximately 50 habitat restoration projects.

In 1993 the Oregon Watershed Health Program(OWHP) began working in the basin, and through 1995 coordinated with GRMWP on over 100 projects which are to be completed by June of 1997. OWHP committed over three million dollars to projects which was cost shared with nearly as much from local landowners and agencies. BPA cost shared in several of these projects.

This proposal will continue these efforts. The influx of projects in the last three years has jump started restoration efforts in the basin. There are now over 140 individual watershed restoration projects, that have been implemented through the Grande Ronde Model Watershed Program, targeting anadromous fish habitat. There is much more public awareness of watershed health because of many of these projects and educational efforts that have complimented the projects. However, restoration of habitat in the basin is still really just in its infancy. It will take many more years to make meaningful strides toward significant habitat improvements. Actions included in this project are needed to continue this momentum and to demonstrate to partners in the Grande Ronde basin a solid, unified commitment to restoration of critical freshwater habitats.

A thorough review process will assure implementation of priority restoration projects. Actions included in this project are to be reviewed by the GRMWP technical committee and Board of Directors. The review will include a screening and prioritization process which will address biological, technical, economic and social merits of each project. Project review is based on several planning activities which are completed or are in progress. These include a basin-wide Habitat Assessment (Huntington 1993), the GRMWP Action Plan, the Grande Ronde Ecosystem Diagnosis and Treatment Project (Mobrand 1995, 1996), Wallowa County - Nez Perce Tribe Salmon Recovery Plan, individual Watershed Action Plans conducted by the GRMWP staff and others, and several Coordinated Resource Management Plans (CRMP) which have been completed or are in progress. See related project # 9202601.

#### **BIOLOGICAL RESULTS ACHIEVED:**

Recent BPA projects have addressed water quality (sediment) problems, fish habitat complexity, adult spring chinook passage, and riparian habitat quality. Timing of benefits range from immediate to long term. For example, a project to alleviate adult passage problems on Catherine Creek addressed a critical passage impediment which, in effect, was solved immediately upon project completion. Projects addressing habitat have included road improvement work or road obliteration to correct chronic sediment sources, large wood additions to increase habitat complexity, and livestock management improvements to reduce grazing impacts in riparian zones.

The 140+ projects financed in part by BPA, the Oregon Watershed Health Program, private landowners, and others have addressed nearly every component of watershed health including: water quality, water quantity, in-stream habitat complexity, riparian vegetation, monitoring, education, data collection, and resource inventory. Some habitat benefits such as reduction of sediment input to waterways have been apparent in the short term. Others such as improvements in riparian vegetation, bank stability or stream temperatures will only become apparent with time. Even though habitat benefits may not fully be realized for many years; monitoring strategies, techniques and methods have been incorporated into the projects will insure that we can quantify benefits when they do become apparent.

ODFW spawning ground surveys indicate an increase from 129 spawning redds in 1995 to 432 redds in 1996 in the Grande Ronde basin.

## PROJECT REPORTS AND PAPERS:

Final project reports have been prepared for all completed projects. Final reports included background of the project, materials and methods used in the project, accounting of expenditures, expected or demonstrated results, participants in the project and photo point documentation. In addition annual project status reports will be completed for the next five years which will include photos at the permanently established photo points. Three comprehensive technical reports have been prepared for the GRMWP. These are the GRMWP Action Plan, the Stream and Riparian Conditions in the Grande Ronde Basin (Huntington, 1993), and the Grande Ronde Ecosystem Diagnosis and Treatment Project (Mobrand 1995, 1996). Three Watershed Action Plans and several Coordinated Resource Management Plans have been completed or are in progress to address individual watersheds. Quarterly

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reports to BPA.

## **ADAPTIVE MANAGEMENT IMPLICATIONS:**

Knowledge will be gained over the next several years through project effectiveness monitoring and through watershed and basin-wide habitat monitoring. Project development has combined state-of-the-art techniques with landowner management plans in most projects. This, together with the GRMWP technical review process, will result in methods and techniques which reflect an adaptive program management. Further adaptations in methods and techniques will result from on-going monitoring. There are also process oriented lessons we have learned that will help us adapt our program and make it more successful in the future. Most landowners are concerned about watershed health and are willing to do what they can to affect improvement, providing the process to get help and financial support is not overly bureaucratic, cumbersome, or intimidating. We have tried to simplify the project development process as much as possible to encourage landowners to participate.

Cooperative relationships with landowners have been developed. Cooperative relationships, built on trust, are more likely to result in beneficial restoration projects than is the threat of regulation. We now realize that development of projects with private landowners takes time and that successful projects and satisfied landowners are the best testimonial to good watershed stewardship and the greatest incentive for other landowners to get involved.

More emphasis on effectiveness monitoring is needed in the near future if we are to plan and use the most appropriate restoration methods and techniques. In the last three years over 140 restoration projects have been initiated that could give us an excellent starting point to begin comprehensive and scientifically creditable monitoring programs to address the adaptive management questions. We should not miss the opportunity to learn from these projects, and will consider more commitment to monitoring in the future.

## PURPOSE AND METHODS

## SPECIFIC MEASUREABLE OBJECTIVES:

The overall objective of the project is to help restore watershed function in the Grande Ronde basin to provide the required spawning, rearing, holding and migration habitat for endangered salmonids.

Objectives cover a wide range of habitat parameters and are specific to individual projects.

This proposal contains 50 or more individual habitat restoration project actions. Assessment of success in meeting objectives will be addressed in individual project monitoring plans.

Site-specific projects will address restoration or improvement of riparian or in-stream habitat, including riparian vegetation, channel stability, temperature, flow, channel structure and in-stream habitat complexity, i.e. large wood, pools. Projects may also address water quality, primarily sediment inputs to the systems. Increased sedimentation has been identified in numerous assessment documents as being a critical problem in many stream systems in the Basin. Other water quality objectives to be addressed are pH, dissolved oxygen and nutrients which are monitored primarily by Oregon DEQ. There may be projects that will focus primarily on education.

#### **CRITICAL UNCERTAINTIES:**

See previous sections. There are many uncertainties with habitat restoration work in the Grande Ronde Basin which could affect success of efforts to increase salmon populations. These include funding, biological complexities, climatological variables, and impacts to salmon populations outside the Grande Ronde Basin. However, watershed and fisheries habitat restoration will have a multitude of ecological side effects, all of which should be beneficial in the long term. Funding uncertainties as we tackle the process of improving conditions which have developed over the last 150 years of settlement. Biological systems are exceedingly complex and often will not respond in predictable ways due to the multitudes of variables in natural systems. Climatological events are not at all predictable and could nullify or negate some actions. Rain on snow events, ice flows and drought are examples of such events. These are risks that we can only hope to minimize through comprehensive project planning and design. Salmon production is affected by conditions and factors on a large geographic scale from headwater habitat to the ocean. This project will address freshwater habitat within the Grande Ronde Basin, which is only a piece in the puzzle.

## **BIOLOGICAL NEED:**

Proposed 1998 projects address freshwater habitat deficiencies identified in technical material and assessments that have been prepared for the Grande Ronde Basin. Listing of the Snake River spring chinook as threatened in 1992, and subsequent listing as endangered, is a testimonial to the serious nature of the habitat problems in the Grande Ronde Basin. Habitat degradation as well as outside influences, for well over a hundred years, has seriously reduced spring chinook production in the Basin from historical levels. Although by no means a cure in itself, habitat restoration is an integral part of the program to increase spring chinook

populations in the Basin. We must succeed in our habitat restoration efforts to even have the opportunity to maintain the wild Snake River spring chinook run in the Grande Ronde Basin.

#### HYPOTHESIS TO BE TESTED:

Projects submitted through the GRMWP are operational restoration projects. Adaptive management is more applicable to this process than experimenting.

#### **ALTERNATIVE APPROACHES:**

Individual restoration projects with this proposal will each explore various methods and practices to meet the particular restoration or habitat maintenance need. The final course of action will be a collaborative effort combining technical, economic, social and practical input to result in projects that meet habitat needs and landowner objectives.

#### JUSTIFICATION FOR PLANNING:

The project will implement on-the-ground habitat restoration actions.

#### **METHODS:**

There may be over 50 individual projects included within this project designation. There is no standard description which adequately portrays methodology. The projects are not experimental and do not include a statistical analysis. Projects may include: road improvement/obliteration/sediment reduction work, historic channel restoration, in-stream large organic material additions, riparian vegetation enhancement, grazing management improvements, fish passage improvements, wetlands enhancement, and pollution abatement.

Work methods are variable and too numerous to list for all of the projects. The approach and methods for any given restoration project are individually developed using available technical expertise, and with the landowner's needs and concerns being a critical component of the process. An example of distinctly different methods of addressing sediment production from roads might be to close, obliterate and revegetate the road if it is not needed; or to improve the road to put it in a minimal sediment producing status if it is needed.

In general, preferred methods of accomplishing given restoration objectives are to allow, or to encourage natural processes to do most of the restoration work over time. Actions which do this are especially appropriate, for example, in restoring riparian vegetation. Controlling grazing pressure instead of planting vegetation may be all that is needed to allow natural revegetation with local plant materials to take place.

Improvement of facilities to make them watershed and fish friendly is an example of the opposite type of restoration, more appropriately called mitigation. Irrigation diversion structure enhancement (eliminating gravel-push dams) is an example of mitigation activities.

## PLANNED ACTIVITIES

#### **SCHEDULE:**

Planning Phase Start variable End 5/98 Subcontractor No

Task The planning phase for the many individual projects that comprise this one comprehensive project will vary widely with the individual projects. Planning and design for some of the more complex projects may involve several resource management agencies, technical people, regulatory agencies and landowners. For less complex projects the planning phase may consist of a simple site visit and preparing a project proposal. Planning may have been months in progress or may occur over a few days. Planning and design of GRMWP projects is accomplished prior to submission of individual project statements of work. We do not request BPA funds for the planning phase of our projects. Planning is covered under Project # 920261 GRMWP Admin/Impl/Research. Broad scale basin and watershed planning is conducted separately from project planning but is often where the ideas for future projects are born. Broad scale plans have identified focus watersheds where we will concentrate near-term restoration actions. Developing relationsh

**Implementation Phase** Start 4/98 End variable Subcontractor Cooperator

<u>Task</u> The major task for 1998 will be to complete as many priority restoration projects in focus areas as possible with available funding. Focus areas are watersheds that have been identified as the most critical links in the efforts to restore watershed health and spring chinook habitat. Restoration projects included in this project are proposed in response to a reaffirmation of the focus areas by the GRMWP technical committee and Board of Directors. Focus areas for the Grande Ronde Ronde, Catherine Creek, Lookingglass Creek and Indian Creek. Focus areas for the Wallowa Subbasin are: Minam River, Wenaha River, Wallowa River, Lostine River, Bear Creek, Big Sheep Creek, Hurricane Creek and the Imnaha River. Projects are scheduled to be completed during the 1998 work season.

O&M Phase Start variable End variable Subcontractor cooperator

<u>Task</u> Operation and maintenance of GRMWP habitat restoration projects is the responsibility of project cooperators, usually landowners or resource management agencies. O & M will involve maintenance of improvements, annual reporting, monitoring, and operation as specified in individual project proposals (statement of work). Operation and maintenance will continue for the time period specified in the project proposal.

#### PROJECT COMPLETION DATE:

**ON-GOING** 

#### CONSTRAINTS OR FACTORS THAT MAY CAUSE SCHEDULE OR BUDGET CHANGES:

Risk of schedule or budget changes will be minimized through proper planning, design and implementation. There are the risks that projects will not fully attain expected results for a variety of reasons, or that proper maintenance will not continue into the future. These risks are to be anticipated and addressed individually with each project as appropriate. NMFS consultation response time may impair project implementation.

# **OUTCOMES, MONITORING AND EVALUATION**

## SUMMARY OF EXPECTED OUTCOMES

#### Expected performance of target population or quality change in land area affected:

The projects are part of a comprehensive watershed restoration program now it its third year with the GRMWP. Projects proposed for 1998, when implemented, will continue to restore riparian habitats and watershed function essential to the continued survival of wild spring chinook salmon in the Grande Ronde Basin. Projects will address the full array of habitat deficiencies identified in various assessment documents. Projects will make incremental habitat improvements toward desired conditions. As noted previously, numbers of chinook adults returning to the system, although an indicator of habitat quality, are not the primary judge of the success of habitat improvement projects. Long term monitoring which measures the appropriate environmental attributes will track actual improvements. Hopefully increased adult chinook returns will be the result of measurable habitat improvement and a healthy watershed.

## Present utilization and convservation potential of target population or area:

The target population is the Snake River spring chinook salmon within the Grande Ronde Basin. The land area is the Grande Ronde Basin. Present utilization within the basin is for tribal ceremonial purposes. Incidental take may occur in the mainstem Columbia River and the ocean. All land area within the Grande Ronde Basin is available to migrating adult fish. Conservation potential is dependent upon funding and societal willingness to modify current land use practices.

## Assumed historic status of utilization and conservation potential:

Pre-settlement use was by native tribes for ceremonial use and subsistence. Actual historical use is not known.

## Long term expected utilization and conservation potential for target population or habitat:

Expected/desired utilization and conservation potential differs with salmon recovery plans (NMFS, Tribes, NPPC).

#### Contribution toward long-term goal:

The project will improve habitat for Snake River spring chinook, potentially increasing spring chinook production.

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## Indirect biological or environmental changes:

Other indirect biological and environmental changes are complex due to the large number of individual projects. Actions implemented under this project are intended to improve watershed function. Actions may range from treatments in and adjacent to watercourses, to upland habitat improvement projects. Projects which improve watershed function will have a multitude of indirect positive biological benefits to other organisms living in the watershed.

#### **Physical products:**

This proposal may include approximately 50 individual restoration projects as part of the statement of work. Individual projects under this proposal will describe physical products.

## Environmental attributes affected by the project:

Individual project proposals describe affected environmental attributes.

## Changes assumed or expected for affected environmental attributes:

Individual project proposals provide a summary of expected changes.

## Measure of attribute changes:

Individual site-specific project proposals will describe expected benefits.

## Assessment of effects on project outcomes of critical uncertainty:

All individual projects will include a plan for implementation and effectiveness monitoring.

## **Information products:**

A final report will be prepared for individual projects. Annual monitoring reports will be completed for a minimum of five years. Other on-going habitat monitoring (not a part of the project) will document long term habitat changes. See related project # 9202601.

#### **Coordination outcomes:**

Implementation of the project will foster continued involvement by private landowners with natural resource agencies to work toward a healthy watershed. Projects such as this, implemented through the local watershed council, reaffirm a cooperative spirit among agencies and landowners to meet watershed protection and restoration goals. See related project # 9202601.

#### MONITORING APPROACH

Some biological and environmental results can be determined from reviewing each of the many individual project annual monitoring reports. Other, perhaps more revealing effects, can be determined by review of periodic habitat surveys conducted primarily by the Oregon Department of Fish and Wildlife, the Umatilla, Nez Perce Tribes, and the U.S. Forest Service.

## Provisions to monitor population status or habitat quality:

Each of the individual projects under the scope of this proposal will have a specific monitoring plan. The plan will describe monitoring activities necessary to define habitat changes. In addition the GRMWP has developed an effectiveness monitoring strategy to coordinate agency and landowner monitoring within the basin and determine cumulative effects. This strategy utilizes monitoring protocols identified in EPA publication # 910/R-93-017. An annual monitoring report is prepared summarizing all monitoring within the basin.

#### Data analysis and evaluation:

Annual reports of on-going projects will be evaluated by GRMWP staff as they are completed. Results will be maintained with project files and used as appropriate during development of future projects.

## Information feed back to management decisions:

The GRMWP Board of Directors annually reviews the results of the previous year's program. This review as well as information g

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athered from other sources or site visits aids the Board during subsequent project planning and project proposal reviews.

## **Critical uncertainties affecting project's outcomes:**

Perhaps the greatest uncertainty is climatological. Periodic floods, ice events, and annual precipitation ranges greatly influence all biological processes, especially recovery rates Another uncertainty affecting our ability to predict project outcomes is related to the extremely complex nature of biological systems. Often similar treatments applied to different areas result in very dissimilar results, neither of which could have been predicted by any available research. Resources committed to monitoring projects and cumulative effects pertinent to conditions in this basin could provide some resolve. Another opportunity may be to facilitate making existing research results easier to access. The internet may be an answer to this question.

#### **EVALUATION**

Review of final reports for some of the individual projects will assess whether the project was implemented according to the plan. Overall project performance can be assessed over the next several years, even decades. The GRMWP is tracking projects via a GIS and an associated data base which could be used by others to track project performance. Elements to track success are identified within the objectives section of individual project proposals.

## Incorporating new information regarding uncertainties:

The GRMWP Technical Committee represents a wide range of expertise in natural resource management. In most cases they will be current with research, studies, etc. in their field. The Technical Committee reviews and helps develop new projects. The Grande Ronde Ecosystem Diagnosis and Treatment Project provides for adaptive management through a defined process for monitoring and feedback.

## Increasing public awareness of F&W activities:

Public awareness and landowner involvement is increasing rapidly. Most projects we do have a degree of visibility to the local urban or rural population. Many have an educational component also. Through the large number of projects we have implemented and the corresponding commitment of funds people are becoming very aware of the regional emphasis on fish and wildlife habitat needs.

## RELATIONSHIPS

#### RELATED BPA PROJECT

5519100 Meadow Creek Instream Structure and Riparian Evaluation

9202604 Spring Chinook Early Life History

5520900 Wallowa/Nez Perce Salmon Habitat Recovery Plan Implementation

9403900 Wallowa Basin Project

8402500 Joseph Creek, Grand Ronde River, Oregon (ODFW)

## RELATIONSHIP

Monitoring of past efforts and adaptive management in action.

Provides critical information to the GRMWP in understanding how the system is being used by spring chinook, allowing better focus with our restoration efforts in the Grande Ronde Basin.

To aid with implementation of the Wallowa County-Nez Perce Tribe Salmon Recovery Plan.

Provides technical support from the Nez Perce Tribe in sub-basin plans, project development, and coordination with tribal priorities for restoration activities.

Involves partnership efforts with Oregon Dept. of Fish and Wildlife. ODFW representatives serve on the model watershed technical committee and the Board of Directors. Representatives are an integral part of project planning and development. The GRMWP uses ODFW expertise in the Grande Ronde Ecosystem Diagnosis and Treatment Project. Working together in restoration efforts has enhanced opportunities for both groups.

9403000 RASP in Grande Ronde basin

9202601 GRMWP Admin/Impl/Research

Grande Ronde Ecosystem Diagnosis and Treatment Project provides a science-based planning process that incorporates local values and objectives. The project uses a patient-template analysis, with chinook as the diagnostic species, to analyze watershed condition, identify restoration alternatives, analyze and prioritize restoration alternatives, and implement selected actions.

Project coordinates, plans, and implements habitat restoration in T&E chinook and steelhead streams. Project builds community-wide participation in watershed restoration among the diverse interests of the Grande Ronde basin; developing innovative ideas in watershed planning. Project plans seminars for stakeholders and facilitates interagency cooperation in habitat restoration.

## **RELATED NON-BPA PROJECT**

Union County, Wallowa County

Natural Resource Conservation Service, U.S. Forest Service, Bureau of Reclamation

Governor's Watershed Enhancement Board; Union & Wallowa Soil and Water Conservation Districts

Oregon Watershed Health Program

## **RELATIONSHIP**

Provide administrative support for projects and technical contracting support.

Partnership in providing planning and technical engineering support in project development, design, and implementation. Providing cost-share funding.

Partnership in funding for habitat restoration projects; SWCD's partners in monitoring and implementation.

Provided field support and funding (\$3.1 million in the 1994-95 biennium) for restoration projects in the basin.

## OPPORTUNITIES FOR COOPERATION:

Project implementation is contingent upon appropriate NEPA documentation and cultural resource surveys where appropriate. Various levels of consultation with NMFS may also be required. NEPA documentation as well as NMFS consultation may be conducted by cooperating agencies on their projects. Implementation will also be contingent upon cooperating agencies or landowners being able to provide equitable cost share. All projects provide opportunities for cooperation among various agencies or landowners. Many times cooperative efforts backed by financial support from two or more entities will be the only way many of these projects will be accomplished. Through partnerships, BPA funds are leveraged to the maximum extent practicable.

## **COSTS AND FTE**

**1997 Planned:** \$1,127,000 **1996 Unobligated:** \$182,937

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#### **FUTURE FUNDING NEEDS:**

#### PAST OBLIGATIONS (incl. 1997 if done):

<u>FY</u>	<u>\$ NEED</u>	<u>% PLAN</u>	% IMPLEMENT	<u>% O AND M</u>	
1998	\$1,142,000		100%		
1999	\$950,000		100%		
2000	\$750,000		100%		
2001	\$750,000		100%		
2002	\$750,000		100%		
$\underline{\mathbf{FY}}$	OTHER FUN	DING SOUR	<u>CE</u>	<b>AMOUNT</b>	IN-KIND VALUE
<u><b>FY</b></u> 1998			<u>CE</u> , NRCS, landowners		IN-KIND VALUE variable/leveraged with BPA Funds
	GWEB, BOR,	USFS, ODFW		ith BPA Funds	
1998	GWEB, BOR, GWEB, BOR,	USFS, ODFW USFS, ODFW	, NRCS, landowners	ith BPA Funds	variable/leveraged with BPA Funds
1998 1999	GWEB, BOR, GWEB, BOR, GWEB, BOR,	USFS, ODFW USFS, ODFW USFS, ODFW	, NRCS, landowners , NRCS, landowners	ith BPA Funds ith BPA Funds ith BPA Funds	variable/leveraged with BPA Funds variable/leveraged with BPA Funds
1998 1999 2000	GWEB, BOR, GWEB, G	USFS, ODFW, USFS, ODFW, USFS, ODFW, USFS, ODFW,	, NRCS, landowners , NRCS, landowners , NRCS, landowners	ith BPA Funds ith BPA Funds ith BPA Funds ith BPA Funds	variable/leveraged with BPA Funds variable/leveraged with BPA Funds variable/leveraged with BPA Funds

## OTHER NON-FINANCIAL SUPPORTERS:

Union and Wallowa Soil and Water Conservation Districts; Oregon Water Resources Dept.; Oregon Dept. of Agriculture

**LONGER TERM COSTS:** \$500,000 per year for implementation

## 1997 OVERHEAD PERCENT:

Projects do not include an overhead mark up, it is considered an in-kind/cost-share from project sponsor.

## **CONTRACTOR FTE:**

Projects may include several Soil and Water Conservation Districts, landowners, volunteers and project contractors.

**SUBCONTRACTOR FTE:** N/A